

International Association for Lichenology

SOUTH AFRICAN FORAY

5 - 22 January 1986

Label Data



University
of the
North



ITINERARY

INTERNATIONAL ASSOCIATION FOR LICHENOLOGY

SOUTHERN AFRICAN FORAY

JANUARY 1986

Plants are the primary source of food for sustaining human life. Studying lichens, one of the first plant forms to establish itself in a new habitat, is therefore of primary importance. The University of the North is proud to be part of this year's field excursion of the International Association for Lichenology and as such welcomes all delegates.

The richness of our sub-continent in lichen species will make this excursion an exciting one. May this endeavour contribute to the compilation of a key for proper identification of South African lichens.

PROF H J OOSTHUIZEN
DEAN : FACULTY OF MATHEMATICS
AND NATURAL SCIENCES

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SOUTH WEST AFRICA / NAMIBIA

NAMIB EXCURSION

(Jan 23)

Table mt hike - Bk. p 14, 15

Hike from Upper Cableway Station
via "Platteklip Gorge" ~~crossing~~
to rock slopes nw of Wordhead Dam.

24 Jan. Pearl Rocks - some Xanthos + Pseudo. badly
burned over. Dome Granite

1 km above Ceres - Ceres Nature Reserve. Sandstone
ledges. Fantastic! rich small area - few soil things!
top of small pass going at once into town. Fynbos! 900 m(?)

32.7 km SE Citrusdal on 303. in Middelberg mtn.
pass like area dropping down. rocks all of a sudden
rich. after 50 km of trying to find Xanthos on roadside
outcrops. Good soil, lots of X. taractea types. Fynbos
but not dense 900 m

35.7 km SE ditto:

Small ledge near 303 Hwy. Not rich but first
interesting things since Ceres!

Jan 25

Stop #1.

Hg N7

1.6 km S turnoff to Marcusheer

36.4 km S Clanwilliam - first indiate on vertical

protected sides See eagle & turtle! Nice!

~~Stop 2~~ 25 km S Clanwilliam open big rocks in pasture.
Much indiate again! 20 major stop of day.

Stop 3

Pakhuis Pass

// (cont)

Sunday 5 January

Participants arrive at J G Strydom Airport.

Overnight in Windhoek at the Hotel Fürstenhof.

NOTES:

Monday 6 January (Day one)

Morning: Depart from Windhoek to arrive for lunch in Swakopmund. Book in at the Pension Schweizerhaus where participants will reside for the duration of the excursion.

Afternoon: i) Visit the Welwitschia flats where superb specimens of Welwitschia mirabilis occur.
ii) Collect lichens on the gravel flats east of Swakopmund.

NOTES:

1st stop. Power transformer site on rd. to Welwitschia flats
2nd stop Sandy wash Power station shrub
? Xanthomaculosa stop }
(Welwitschia flats - stop 3) }

Knox Stop. - 29.7 km. E of Clonville

Exposed medium boulders (near ^{small} lake where I get feet muddy)
Much *X. chlorea*! + *X. knox* sp.

Parkhuis - much sandstone but lichens erratic. often nothing, then good patches. *X. exornata* on hard quartz. *X. chlorea* intergrading with greenish form!

after a while toward Vanrhynsdorp all "sagebrush" & flat.

26 Jan

19.5 km N Vanrhynsdorp - pure sage - flat - find 6-8
super soil *Xanthos* (incl *neocongruens*?) on quartzite
pebbles + schist.

44 km N V.r. dorp small quartzite ridge in open
2 pigmented species + some on soil but not neocongruens
opposite road to Groot-Graafwater

on 363 7 km W Murrumbidgee - 2 open sandstone
ridges all bright yellow-green!! no taractia
on soil type. Much *X. exornata*

8.3 km from Garies on Studenspoor road.
desert, hot! granite dome & boulders. lost *Hypoleia*
& loose foliose. Much *chlorea* + nice one.

23 km N of Garies on 67 - nice granite
domes - rich - more loose foliose. Center
of granite hills.

Tuesday 7 January (Day two)

- Morning:
- i) Travel to Gobabeb, the desert ecological research station. *sand desert*
 - ii) Collect corticolous lichens on vegetation in the Kuiseb River and saxicolous lichens of the surrounding gravel plains. *Acacia*

Afternoon: Return to Swakopmund and continue collection of lichens on the coastal gravel flats east of Swakopmund.

NOTES:

Swartbank mt

2. Tree - Kuiseb River

3. Stone ridge (return)

Wednesday 8 January (Day three)

- Morning: Depart for Mile 72 to collect lichens at the Laguneberg mountains.
- Afternoon: Collect terricolous lichens on the gravel plains north-east of Wlotzka's Baken.
- Evening: Attend reception given by the Mayor of Swakopmund.

NOTES:

Telochia to stop

→ Gravel - E of DaK Kaloputs

(60 km n. Swakopmund)

27 Jan 1 km ^E on b4 mt of Springbok.

(1) beautiful sloping easy domes. get ^{granite} X. leavoo for sure

(2) 8.4 km W Steindorff 7-382 Jct.

smooth ringy granite in schistose areas

(3) 15.5 km W of Steindorff 7-382 Jct

Soft granitic sandstone. Ordinary species found.

28 Jan

low domes just E of Kamieskroon Hotel
mountain but good X. buxifolia?

36.4 km N of Van Ryns Drif

wind swept quartzite pebble patch

X. hypochrysa + X. "convoluta" type

40 km NE of Van Ryns Drif — leave Namaqualand
to high table land. see dead cobra!
by 27 (?) Sandstone talus in fynbos below cliffs.
X. endomillotides site!!

Summit of Van Ryns Drif Pass — exposed.
windy cliffs. Not so rich.

29 Jan. Kimmoudville Nature Reserve

cool on Tableland now! koppie — excellent.
much loose foliage!
not Namaqualand flora!

Akberendam Nat. Res. Calvinia

low ridges below huge basalt cliffs

few lichens except X. colrata + small globose just!

Thursday 9 January (Day four)

Morning: Travel northwards along the coast to collect lichens inland from Cape Cross.

Afternoon: Visit one of the few sites in the Skeleton Coast Park where Santesonia namibensis occurs in an easily accessible locality.

NOTES:

- ① Santesonia stop - Skeleton Coast - Ogdeni Rocks
at flats
- ② Stop 1. Gravel flats. "Xantho"
E of Cape Cross
- ③ stop 2 Gravel flats - Hotten tottem, Santesonia stop
- ~~Stop 3~~ Gravel flats gravel plain
along outside of museum?
Crater

Friday 10 January (Day five)

Morning: Return to Windhoek.

Afternoon: i) Pack and post collected material.
ii) Sight seeing/shopping in town.

Evening: Overnight in the Hotel Fürstenhof, Windhoek.

NOTES:

29 Jan → No middlepos - 33.2 km So of "Dolerite?"
Hy 354 + 27 junction

11 km SE middlepos low sandstone

karoo ridge in
not too bad but nothing special

61 km S ~~middlepos~~ on or — kn N Sutherland

top of Table land - flat soil rock

nic ~~col~~ semi terricolor!

X colnata on pebbles? + tarachia type.

6.8 m S Sutherland still on top.
flat dolomite ridge - soil thry!!

78.8

78.6 km S Sutherland

beautiful exfoliating granite-sandstone
much foliose + subcrystalline

3320 Bb

30 Jan 8 km S Lamsby on 323. Topotype
X. scitula on vertical basalt-schist.!! (photo)

not much except a Pseudo + 3-4 other Xanthos

1 km S from E to road at Sevenpots Pass.

down into pass lichens very sparse except
on top of big quartzite boulders. Cut finger on quartz

9.9 km down. Got X endonit!? + X millersia
+ several other unknown! Starty to look
good!

12.0 ditto

off R62 E of Calatdorp

3.6 km N Krivierie - flat valley to Bultfontein To N
then conglomerate-rich

Saturday 11 January (Day six)

Morning:

Depart early for the J G Strydom Airport.

Return to South Africa on flight SA 700 which
departs at 09h25.

NOTES:

31 Jan 24 km N Duthane at Schoemanspoort.
steep vertical right lift sandstone
little lichen except good patches everywhere!

16.7 km NW on Swartberg pass road
Cango Caves
fynbos (burned) & TMS ridges low.
TMS 3-4 x anthos.

19.9 ditto big sloping TMS. Vansterfui knoxsp
XX, diadema!!

21.3 " Rare devil climb to get P. violacea!
also meet's - roadside dry area
Top Pass: Terrible wind, easily remind P. astrate few Xanthos
21 km Quartzite NE of Prince Albert }
22 km dolomite NE of Prince Albert }

Other side⁶ of Swartberg dry!!
these 2 localities last of right lift ridge
2d in open dolomite

1 Feb - Mottenopas - typical dolerite cliffs
above Beaufort Mts. X *Andonella* + subenstose
+ nice + loose foliose. Typical Karoo.

meirungaport type local X *Leucostegia*
collected on table of schist nice for everything.
trouble crossing river
X. *synestia* on vertical surfaces.
another beautiful canyon!!

18 km N De Rust

2 Feb.

26.4 km E Ladismith on R62. hillside (bushy)
with easy to reach conglomerate boulders & ledges.
super! *Flavipunctata* + *Punctata* + X *Andonella*!

23 km SW Ladismith R62, schist flat
along Hay full of soil thys (foss)
(vertical strata)

46 km " " ridge of schist. Tens of fossils!

61 km " " nice soil site!
P. pulchra!! fossils
↑ ↓ (= 15.9 km NE Baerengdale)

+ Falls at Tnadopas

3 Feb 86 1. Pass below Montagu TMS
3.8 km S of Montagu

27 km E Swellendam on N2

low TMS capping. heavy farmed rolling country
Migmat below! No X. *amphixanthus*

19.3 km N Rensdals Garsca pass
TMS - tough to reach!
said (antho + Mamakwe)

Feb 3

28.2 km. W of Mosselbaai on N2
quartzite outcrops (near RR) isolated
Strange Recella

SOUTH AFRICA

TRANSVAAL EXCURSION

Feb 4

1. De Vasselot Nature Reserve.
along R102. First (west) picnic table

✓ ② Nature Valley Trail - fantastic area - many lichens

✓ ③ Bloubaai River Bridge on R102 x phacophana predominant
rocks

✓ ④ Hout River Rest Area - No of Nature Valley on R102
(get tiny Parm on fallen branches)

⑤ W side (R102) - of Witteklipbos [W of Stormrivier]
logged indigenous forest

⑥ Just E of Stormrivier forest station
logged indig. forest

⑦ Otter Trail - Tsitsikoma ~~Stoat~~ National Park

W of Stormrivier road
⑧ 4.7 to 16 h. E of Kingsna on R102 Garden of Eden

Diepwalle Forest

12.9 km N Uniondale Rd. R

across So border Deepwells St Forest (dept)
logging road - rich moss forest, May Parnassia punctata
Thebes 1.6 km S Big Tree Picnic area

↗ South Boundary.

Gouma road Jct. - roadside forest
+ walks.

Ysternek (Dal van varings)
Nature Reserve

D. Nature Reserve - Fern Grotto
much Bullbush

Tsitsikame Nat Park forest - { mature forest
find P. erumpens. not too rich

6 Feb outside George - Sarsveld Gorge

Tree 370 smooth
578 rough
513

Green ~~weide~~

meweide

Forest walk.

Floor dry but get good insects + erumpens

Montagu Pass

5.5 km N of George - vertical moist cliffs
+ trees in "picnic area".

Uniondalepoort TMS cliffs - nice "soil" lhy near
Xanthixantha, suberulose - few loose, hard to reach

3.3 km No of junction R62 + Uniondale Rd

Ghwarriepoort - Hg 57 15.3 km So
Willowmore.

24 km NE Willowmore - dolomite koppie
very sparse Xantho - but typical species present

Saturday 11 January (Day one)

- Morning:
- i) Arrive Jan Smuts Airport at 11h00.
 - ii) Welcome by the Director, Botanical Research Institute, Pretoria. Refreshments courtesy of the Institute.
- Afternoon:
- i) Depart for Pietersburg at 14h30.
 - ii) Book in at The Ranch Motel, Pietersburg.
- Evening:
- Attend reception given by the University of the North.

NOTES:

Sunday 12 January (Day two)

- Morning:
- i) Collect along the top of the escarpment in the vicinity of Magoebaskloof (tropical forest).
 - ii) Depart for Louis Trichardt.
- Afternoon:
- i) Lunch at Ben Lavin Nature Reserve near Louis Trichardt. Collect in arid, mixed bushveld of the Reserve.
 - ii) Short trip to the Lowveld north of Soutpansberg Mountain to collect on sandstone outcrops which are typical of the arid northern Transvaal.
 - iii) Overnight at Clouds End Motel, Soutpansberg Mountains.

Not
Done

7 February

Karoo Nat reserve - great cliffs & valley of Desolation
near Graaf Ruit. ± unreachable mg on one cliff face!
get *P. pilosus* abundant + *Pumilio*. shrubs bigger in
coppices between rocks. Sandstone

39 km NE Graaf Ruit in pass - along river. Just 4 *Xanthos*.

Lootsberg Pass 1785 m sandstone ledges.

few *Xanthos* but *X. colorata*, *Namakwa*
Dir konbebo - Midland mesa country no trees - karoo

26.7 km SE Middelburg slate + few
dolerite unique on hillsides

Witkrans Pass

→ Mountain Zebra NP - Feb 7

8 Feb

✓ 17 km E Grodsch - bigger *Acacia* with *Flavopunctata*
& *Parnus*. 1 *Xanthos* 1 *pseudos*
low dolerite outcrops. R61

28.7 ditto

off R61 (1 km S)

to Bulhoek

dolerite cliffs

✓ 17.8 km W Queenstown

1st *Parnus* on rock

Queenstown

Lawrence de Lange Nat Res.

✓ no rocks - mg *Acacia* *Pumilio*

can't reach sandstone cliff (too away)

Evening: Reception by the Mayor of Louis Trichardt.

NOTES:

① Soil stop
Trees at Forestus station → on planted zone
Woodbush Forest Reserve.
Main "forest" - rocky tree, shrub
Planted Trees on way back to Forestus station
→ super Hypotrachyna stop + Xanthos + Parmo
Power line running thru scrub forest, Hypo +
+ small outcrops overlooking
low veld

Monday 13 January (Day three)

Morning: Collect at the most western point of the Soutpansberg Mountain (tropical forest, Soutpansberg quartzite).

Afternoon: i) Depart for Graskop.
ii) Book in at Graskop Municipal Caravan Park, where participants will reside for the duration of the eastern Transvaal excursion.

NOTES:

Cliff tops after rough jeep ride up! Good
Xanthos + low scrub. Few Hypotrachyna
#2 Top - 1700 m. - Super!! No herpesselia, few Parmo
#3 1400m woods stop, sec. forest - poor
#1 1600m

open areas, with rock outcrops to 20' high
surrounded by trees
Ranger speaks Sotho

Nylgatenstrom.
✓ 37.4 km ON R30 spac. fantastic sandstone
many Xanthos, Namakwa, Parnos etc. *Antelias punctata*

✓ Boesmanshoekpas n.v. of Sterkstroom
Sandstone H₂ 397

✓ 33.8 km W of Dordrecht Thysb
Sandstone ridge in high veld

9 Feb

✓ 4.1 km E Dordrecht - another typical sandstone ledge in
high veld - local shows us out. (foto) Sandstone
= 20 km W Elliott

✓ 38.0 km E Indwe - long hike thru grassy slope
to virgin cliffs (foto) - nice Parnos. fewer X's

-18.6
✓ 17.8 km N Elliott - Barkley's Pass - huge flat
to slopy sandstone exposures - my 2 Xanthos in clods
6200' + more up road!

52.5 km SE Lady Grey
in wide Drakenburgs soft ± conglomerate SS
nice!! very rich Xt 5200'

Tuesday 14 January (Day four)

Morning: Collect lichens along the banks of the ^{Stop # 1} Treur River (mainly saxicolous lichens).

Afternoon: Collect at The Peak, an undisturbed tropical forest along the Eastern Transvaal escarpment (foliicolous and corticolous lichens). ^{rain}

Evening: Dinner at the Royal Hotel, a reminder of the hey-day of Pilgrims Rest, a mining town dating from 1873.

NOTES:

Trees among rocks. rather poor
Stop # 2. Kowynopas near Graskop
Stop # 13
Semb trees around big rock exposure - Super - Fl. pachydactyla, Ps. chepadensis
Xanthos galore + on soil + X. albomaculata
lost city type + forest around outcrops
excellent!

Wednesday 15 January (Day five)

Morning: i) Visit Pilgrims Rest on our way to Mount Sheba.

ii) Spend the remainder of the day collecting at Mount Sheba (saxicolous, foliicolous and corticolous lichens).

Evening: Attend reception given by the Mayor of Graskop.

NOTES:

mt sheba: long rocky ridge
"like lost city" highest elevation!
many Hypotrachyna + few Xanthos
one on soil
Podocarpus clumps around outcrops

Stop # 2. Lower elevation - (rain) little collecting

~~Podocarpus~~

Podocarpus. ?

Feb 10

Orange Free State

16.2 km N Alimal Road. breezy dolomite low kopie.
2 X's all. area ± flat

17.8 km NE Jct 30 on 26 (after Rouxville)

sandstone cliffs - nice Xanthos + 2 Parm. good climb.
virgin (Bea doesn't try fence) breezy cool! (get huge thys & drop bag - have to go back)

✓ 42.9 km S of Weyers. H₂ 26

Same as previous locality. Nice stringy (21)

Pseudo parvula

4800'

✓ 4.3 km ^W Jct 56 & 26 near Ladybrand.

excellent huge sandstone isolated rock +
flat exposures as at Barklays Pass!

5000'

(11)

Feb 11

Golden Gate Nat Park — 1st Acacia in ravine on way up

1. trail to top Brandwagrots (Butters)

Sandstone

soil things + gandy orange below!! 1st alpine stop!

2. Mushroom rocks - vertical base wet mist fall!

↑ nice for X's.

10.6 km NE park - on Populus playground

✓ Draakensberg Botanical Garden

(~~edit to~~)

Cave Sandstone rocks in "work" of

(can't reach Leucosidea sericea,
just basalt cliffs) (22)

5400'

Thursday 16 January (Day six)

*Sandstone
(Quartzite)*

Morning: Collect at the summit of Long Tom Pass, between Sabie and Lydenburg. Site (2149 m above sea level) frequently covered by snow during winter.

Afternoon: Pack collected material.

NOTES:

Stop 1. Long Tom Pass Summit - mist + wind & rain
exposed ledge best + soil!

Stop 2. Eucalyptus trees - whistling? Picnic area.
like cloud forest thick fol. + Manca

✓ Stop 3. Mac Mac Falls. (Rocks).

± mesic scrub + rocks in
ring canyon.

Friday 17 January (Day seven)

Morning: i) Depart for the Kruger National Park, book in at Skukuza rest camp.

ii) Spend day viewing game in the Park (there will be an opportunity to collect lichens).

NOTES:

Feb 12 No collections. In Pritzenmertzburg

Feb 13 Natal Table mt. 658 m elev.

out right to top & E cliffs. easily collected
Xheterodoxa. few *X*'s - all adulate. + *Parm.*
& many *Pseudos*.

Feb 14. sandstone ledge above N3 at duchanga

W g Durban. \pm = NTM 2000' duchanga
rather poor stop.

② Krantzklouf Nature Reserve

Rock & Tree

poor collections - almost all parks
Parmicos

③ Dlinga Forest Nature Reserve (Eshowe)

good indig forest. 2 *thelos*
+ *Parmicos*.

④ Nkandla Forest Reserve

3000'

25 km down grassy
contours.

(dit root)

new mossy - hard to reach tree tops
where all the action is

50 km NW Eshowe

(may not have
seen main forest)

15 Feb

~~Eshowe~~ Eshowe Forest Reserve

Eshowe Nature Reserve

1900' close to Dlinga but fewer fallen branches

\pm 5 *thelos*! strange *Azptachyos* 13 km E Eshowe

Hluhluwe Game Reserve

Acacias. Finally see *Rins*! but few lichens except

P. austrosinensis

Saturday 18 January (Day eight)

Morning: Depart early for Jan Smuts Airport, Johannesburg.

Afternoon: Fly to Cape Town on SA 331 (flight departs at 18h00).

NOTES:

16 Feb '86

① Umlalazi Nature Reserve (near Mlungini)

- ✓ a) Coastal forest - nice! - *P. tinctor* dominant
(Dense, interlocking vegetation) + *Hypotrachyna*: no surprises.
- b) mangrove - nil - bark of chief tree fine flaking.

② Vernon Crookes Nature Reserve (near Umginto)

1100' → excellent site! *P. malaccensis*!
tree + rock zabras! + rock (few *Xanthos* + much *Pseudos*
coppies like Transvaal!

17 Feb '86

P. conrescens + *P. xanthus*!!

rocks covered with a few *Xanthos* + *Pseudo*. *disideli*?

Oribi Gorge Nature Reserve Big hike to top!! (Fantastic!!)

New walk thru moist forest to rocks on top (Sandstone). Trees on top with many lichens.

Ngeli (Ingeli) Forest (Ngeli)

[Kokstad] next town

{ 4.0 km from INgeli Forest Inn. ↔ ("open" roadside tree)
2.2 km from Ingeli Forest Inn' 3000' [3800]?

Podocarps + indigenous ^{forest} *Parmos* + *Hypotrach*
much more than last few days! open understory!
[missed Wiza forest. Don't find trail in Ngeli at all.]

18 Feb.

2.2 km S Bulwer - "Polela Forest". Nice indigenous
but hard to reach as usual. Guide from Foresty Co. Nice
Parmos + *Hypos*. No *Thelos*. (some on rock)

4.6 km W Colford - planted European oaks
Just over Transkei border

✓ NE of Colford - cloddy outcrops on ridge
Lush - only 1 *Xanthos*. Whole day spent in (with Bulwer
farmland - pasture, few trees. Tot Underberg - Colford Rd

SOUTH AFRICA

CAPE EXCURSION

19 Feb.

- near Sani Hotel Leucosidea near river.
- Sani Pass 2875 m! Typical Paramo-like high elev. lichen (*Xanthoria* + *Neofuscelia*). No trees. huge area of E Lesotho obvious treeless; Pastureland + some sandstone ledges.

20 Feb. Injasuti ^(Giants Castle) - yellowwood trail along river. big boulders in shade - lush *Parmis*, *Hypotrachyna* etc. few *Xanthoria*. New flora!! + rocks 1 km E of camp. 3-1.5 km N of Underberg. Roadside Leucosidea + sandstone. picnic site

21 Feb. Champagne Castle Hotel ^(Robin Hood Cove) (better place!) trail to sphinx 5500-6000' - Leucosidea + excellent!! *Podocarpus* in ravines. Rocks poor. Mass coll *P. pseudograyana*? 2 X's. Great for *P. natalense*. whole area green & wet.

22 Feb. ^{Cathedral Peak} dundimeni forest. Disappointment! recollect *P. defectus* + *P. punctella* but not *H. fissicarpa* or *P. pseudograyana*. Forest very mossy, mature. Lichens poor. Great sandstone cliffs very poor for lichens!! [Mike's Pass stop]

23 Feb. ^{Royal Nat. Park} Indigenous forest along river - trail to Devil's Hook. excellent!! Surprise. *P. pilosum* - + *Hypotrachyna* N15 *Punctelia* common! Much better than dundimeni and close to Champagne Castle day.

Witsieshoek pass. 8100'. Howling wind! steep grassy slopes of basalt overlooking Royal Nat. Park. 3-4 Soil-rock *Xanthoria*. Nice stop! near Sani Pass!

Saturday 18 January (Day eight)

Evening:

- i) Flight arrives at D F Malan Airport, Cape Town at 20h00.
- ii) Book in at a residence of the University of Cape Town where participants will reside for the remainder of the excursion.

NOTES:

Sunday 19 January (Day nine)

Entire day:

Collect along the slopes of Table Mountain in the Kirstenbosch Botanical Garden.

NOTES:

1. Lower trail area: open scrub +
much nice sandstone - thick with
Xanthos. ~~Porepamelia~~ etc
mid wooded - some nice Parmelia etc
upper talus - few xanthos
much Parmo. Mist zone ← 490 m elev
2. Table Mtn - 1067 m. ~~at~~
big exposed rocks along
edge from station.
sheltered lower part!

24 Feb 6700' ca 3 km NW Witsieshoek
Resort Hotel. Nice cave Sandstone ledge
back to good X conty. + copperties Quaternary

38.5 Km S. Standerfontein. Orange F. State
Sandstone ledge (outcrop) in prairie pasture.

5200'

Feb 26 — Near Pretoria

Stop #1. (Page 180, Atlas). Off H₁ R21

SW. Slope

1440 m.

2528' CC

Golf Course. NW monument Park
SE Pretoria

Apiesrivier Valley

Stop #2

Skano Kop 1500 m.

S. of Central Pretoria

2528 CC

Monday 20 January (Day ten)

Entire day: Collect at the summit of Bain's Kloof Pass near Wellington, as well as in the Karoo Botanical Garden near Worcester.

NOTES:

Bain's Kloof Pass - Eerste Tol
Typical fynbos no trees huge sandstone mtns. 1700 ft
Burned but many Xanthos (2 with orange (590 m²)
bottom!)

① Karoo Bot garden - schist - total Worcester
near ② Karoo flora! + X. molluscicola, X.
Worcester colorata X Chalcidopsis etc.

Tuesday 21 January (Day eleven)

Entire day: Travel to Cape of Good Hope Nature Reserve, collect lichens along the coast.

NOTES:

- ① Olifantsbosbaai - "California" chaparral!
only 4-5 Xanthos, + Parmelina & Pseudos!
Other stops no Xanthos!
- ② Buffelsbaai - Lunch stop. (shore)
- ③ Pekaia's Point - Rocella shore stop.

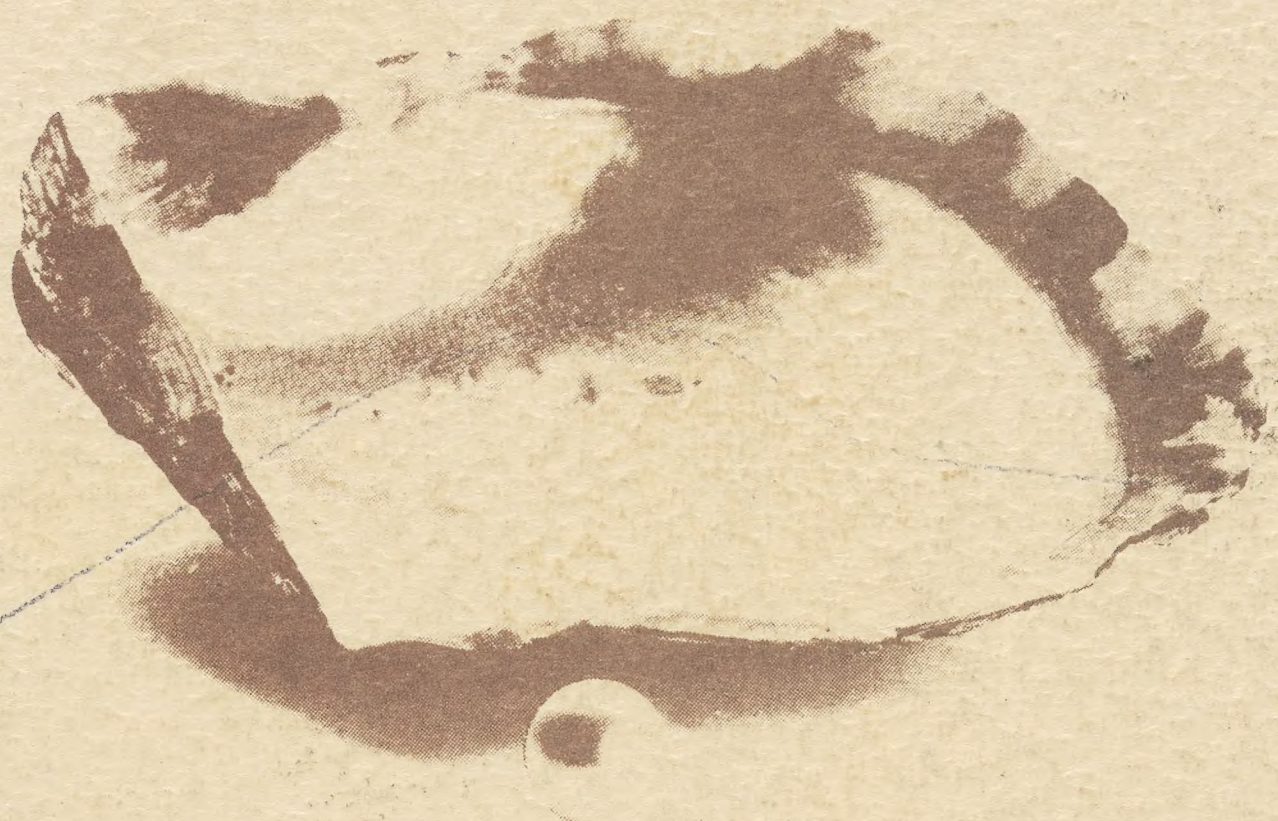
Wednesday 22 January (Day twelve)

Morning: i) Pack and post collected material.

ii) Tour ends.

Afternoon: Depart from D F Malan Airport at 12h30 on South African Airways flight number SA 302. Arrive at Jan Smuts at 14h00. Catch international flights home during the evening.

ACKNOWLEDGEMENT OF DONATIONS



**WHEN NATURE CREATES A MIRACLE
COST IS THE LAST CONSIDERATION.**



IT'S OUR FIRST.

In August 1955, when an elated team at Sasol hailed the creation of their first beakerful of petrol-from-coal, it was indeed a small miracle. An achievement preceded by several years of trial and error, of taking expert advice and taking the lead in a brand-new field.

Which paid off. Because today, less than 30

years later, we have 3 Sasol plants in full operation. Each an economic viability in itself; all delivering a quality product from low-grade coal — at a competitive price. And that's no mean feat considering we must imitate nature every step of the way, with every regard to cost, in creating our miraculous fuel of the future.

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OUR RESOURCES.

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